

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (*Currently Amended*) A method of synthesizing speech using discourse function level prosodic features comprising the steps of:

determining a theory of discourse analysis from a plurality of theories of discourse analysis based on the speech to be synthesized;

determining output information;

determining discourse functions in the output information the discourse functions being determined based on a mapping between basic discourse constituents of the determined theory of discourse analysis and a plurality of discourse functions;

determining a model of discourse function level prosodic features; and

determining adjusted synthesized speech output based on the discourse functions and the model of discourse function level prosodic features.

2. (*Currently Amended*) The method of claim 1, wherein the discourse functions are determined based on [[a]] the determined theory of discourse analysis.

3. (*Original*) The method of claim 2, in which the theory of discourse analysis is at least one of: the Linguistic Discourse Model, the Unified Linguistic Discourse Model, Rhetorical Structures Theory, Discourse Structure Theory and Structured Discourse Representation Theory.

4. *(Original)* The method of claim 1, wherein the output information is at least one of text information and application output information.
5. *(Original)* The method of claim 1, wherein determining the adjusted synthesized speech output further comprises the steps of:
 - determining a synthesized speech output based on the output information;
 - determining discourse function level prosodic feature adjustments; and
 - determining adjusted synthesized speech output based on the synthesized speech output and the discourse level prosodic feature adjustments.
6. *(Currently Amended)* The method ~~system~~ of claim 1, wherein the model of discourse function level prosodic features is a predictive model of discourse functions.
7. *(Original)* The method of claim 6, in which the predictive models are determined based on at least one of: machine learning and rules.
8. *(Original)* The method of claim 1, in which the prosodic features occur in at least one of a location: preceding, within and following the associated discourse function.
9. *(Original)* The method of claim 1, in which the prosodic features are encoded within a prosodic feature vector.
10. *(Original)* The method of claim 9, in which the prosodic feature vector is a multimodal

feature vector.

11. (*Original*) The method of claim 1, in which the discourse function is an intra-sentential discourse function.

12. (*Original*) The method of claim 1, in which the discourse function is an inter-sentential discourse function.

13. (*Currently Amended*) A method of synthesizing speech using discourse function level prosodic features comprising the steps of:

determining output information;

determining discourse functions in the output information based on a contextually aware theory of discourse analysis using a mapping between basic discourse constituents of the contextually aware theory of discourse analysis and a plurality of discourse functions;

determining a model of discourse function level prosodic features; and

determining adjusted synthesized speech output based on the discourse functions and the model of discourse function level prosodic features.

14. (*Original*) The method of claim 13, in which the context is at least one of: semantic, pragmatic, and syntactic context.

15. (*Currently Amended*) A system for synthesizing speech using discourse function level prosodic features comprising:

an input/output circuit for retrieving output information;

a processor that determines a theory of discourse analysis from a plurality of theories of discourse analysis based on the speech to be synthesized; determines discourse functions in the output information based on a mapping between basic discourse constituents of the determined theory of discourse analysis and a plurality of discourse functions; determines a model of discourse function level prosodic features; and which determines adjusted synthesized speech output based on the discourse functions and the model of discourse function level prosodic features.

16. *(Currently Amended)* The system of claim 15, wherein the discourse functions are determined based on ~~[[a]]~~ the theory of discourse analysis.

17. *(Original)* The system of claim 16, in which the theory of discourse analysis is at least one of: the Linguistic Discourse Model, the Unified Linguistic Discourse Model, Rhetorical Structures Theory, Discourse Structure Theory and Structured Discourse Representation Theory.

18. *(Original)* The system of claim 15, wherein the output information is at least one of text information and application output information.

19. *(Original)* The system of claim 15, wherein the processor determines a synthesized speech output based on the output information; determines discourse function level prosodic feature adjustments; and determines adjusted synthesized speech output based on the synthesized speech output and the discourse level prosodic feature adjustments.

20. (*Original*) The system of claim 15, wherein the model of discourse function level prosodic features is a predictive model of discourse functions.
21. (*Original*) The system of claim 20, in which the predictive models are determined based on at least one of: machine learning and rules.
22. (*Original*) The system of claim 15, in which the prosodic features occur in at least one of a location: preceding, within and following the associated discourse function.
23. (*Original*) The system of claim 15, in which the prosodic features are encoded within a prosodic feature vector.
24. (*Original*) The system of claim 23, in which the prosodic feature vector is a multimodal feature vector.
25. (*Original*) The system of claim 15, in which the discourse function is an intra-sentential discourse function.
26. (*Original*) The system of claim 15, in which the discourse function is an inter-sentential discourse function.

27. (*Currently Amended*) A system for synthesizing speech using discourse function level prosodic features comprising:

an input/output circuit for retrieving output information;

a processor that determines discourse functions in the output information based on a context aware theory of discourse analysis using a mapping between basic discourse constituents of the contextually aware theory of discourse analysis and a plurality of discourse functions; determines a model of discourse function level prosodic features; and which determines adjusted synthesized speech output based on the discourse functions and the model of discourse function level prosodic features.

28. (*Original*) The system of claim 27, in which the context is at least one of: semantic, pragmatic, and syntactic context.

29. (*Currently Amended*) A carrier wave encoded to transmit a control program, useable to program a computer to synthesize speech using discourse level prosodic features, to a device for executing the program, the control program comprising:

instructions for determining a theory of discourse analysis from a plurality of theories of discourse analysis based on the speech to be synthesized;

instructions for determining output information;

instructions for determining discourse functions in the output information, the discourse functions being determined based on a mapping between basic discourse constituents of the determined theory of discourse analysis and a plurality of discourse functions;

instructions for determining a model of discourse function level prosodic features; and

instructions for determining adjusted synthesized speech output based on the discourse functions and the model of discourse function level prosodic features.

30. *(Currently Amended)* Computer readable storage medium comprising: computer readable program code embodied on the computer readable storage medium, the computer readable program code usable to program a computer to synthesize speech using discourse level prosodic features comprising the steps of:

determining a theory of discourse analysis from a plurality of theories of discourse analysis based on the speech to be synthesized;

determining output information;

determining discourse functions in the output information, the discourse functions being determined based on a mapping between basic discourse constituents of the determined theory of discourse analysis and a plurality of discourse functions;

determining a model of discourse function level prosodic features; and

determining adjusted synthesized speech output based on the discourse functions and the model of discourse function level prosodic features.